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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,115	09/22/2003	Yoshinobu Utsumi	Q77538	5422
<div>23373 7590 09/04/2007</div> <div>SUGHRUE MION, PLLC</div> <div>2100 PENNSYLVANIA AVENUE, N.W.</div> <div>SUITE 800</div> <div>WASHINGTON, DC 20037</div>				
			EXAMINER	
			SCHEUERMANN, DAVID W	
			ART UNIT	PAPER NUMBER
			2834	
			MAIL DATE	DELIVERY MODE
			09/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

TH

Office Action Summary	Application No. 10/665,115	Applicant(s) UTSUMI ET AL.	
	Examiner David W. Scheuermann	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,5,6,8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,7 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

RCE

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/14/2007 has been entered.

Response to Arguments

Applicant's arguments filed on 7/9/2007 have been fully considered and are not persuasive. Applicant argues that the limitation, "said rotary shaft itself is a magnetic flux interrupting means made of a non-magnetic material," is not satisfied in the Youshinobu, JP 2002084724 (RELYING ON EP 1482625 A1 FOR TRANSLATION) reference. Examiner disagrees. The phrase, "wherein said rotary shaft itself is a magnetic flux interrupting means made of non-magnetic material" still leaves open the possibility that the shaft may be wholly or partially made of non-magnetic material. The latter case is clearly met in paragraph 29 of Youshinobu, JP 2002084724 (RELYING ON EP 1482625 A1 FOR TRANSLATION). Paragraph 0029 is reproduced, in part, with emphasis below for convenience:

[0029] ...rotatable shaft 30 is made of a nonmagnetic material...

Claim Rejections - 35 USC § 102

Claims 1 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Youshinobu, JP 2002084724 (RELYING ON EP 1482625 A1 FOR TRANSLATION). Youshinobu, JP 2002084724 (RELYING ON EP 1482625 A1 FOR TRANSLATION) shows:

An electric rotating machine for a vehicle (see figure 1) comprising: a rotor core 6 that is fitted to a rotary shaft 30 (via coupling 33 and shaft 12); a stator core 3 that is concentric with said rotor core and disposed on the outside of said rotor core; and a turning angle detector 20 that is disposed at one shaft end of said rotary shaft;

said rotary shaft 30 itself is a magnetic flux interrupting means made of a non-magnetic material, (see paragraph [0029]) for interrupting leakage flux passing onto said rotary shaft as a result of excitation of a rotor coil 10 wound on said rotor core.

As to claim 10, note that Youshinobu, JP 2002084724 (RELYING ON EP 1482625 A1 FOR TRANSLATION) refers to rotation angle or position detector 20 in the abstract, which is functionally equivalent to a resolver.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Youshinobu, JP 2002084724 (RELYING ON EP 1482625 A1 FOR TRANSLATION) in view of Kitazawa, JP 09065617. Youshinobu, JP 2002084724 (RELYING ON EP 1482625 A1 FOR TRANSLATION) discloses the invention substantially as claimed as set forth in the rejection of claim 1, supra. Youshinobu, JP 2002084724 (RELYING ON EP 1482625 A1 FOR TRANSLATION) does not expressly disclose, "...wherein a high-permeability magnetic bypass member is disposed between said rotor core and said turning angle detector." Kitazawa, JP 09065617 discloses a magnetic bypass member is disposed between said magnetic core and said turning angle detector, for the inherent purpose of improving signal strength by reducing interference. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to place a high-permeability magnetic bypass member between the rotor core, which contains a magnetic core, and the turning angle detector or resolver in Youshinobu, JP 2002084724 (RELYING ON EP 1482625 A1 FOR TRANSLATION). One of ordinary skill in the art would have been motivated to do this improve the signal strength and reduce noise in the resolver by reducing stray magnetic fields.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Youshinobu, JP 2002084724 (RELYING ON EP 1482625 A1 FOR TRANSLATION) in view of Maestre, US 5300884. Youshinobu, JP 2002084724 (RELYING ON EP 1482625 A1 FOR TRANSLATION) discloses the invention substantially as claimed as set forth in the rejection of claim 1, supra. Youshinobu, JP 2002084724 (RELYING ON EP 1482625 A1 FOR TRANSLATION) does not expressly disclose, "...wherein said turning angle detector is a resolver having corrugations formed on a curved outer surface of said resolver." Maestre, US 5300884 discloses a resolver having corrugations formed on a curved outer surface of said resolver, for the inherent purpose of improving signal strength. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use a resolver having corrugations formed on a curved outer surface of said resolver in the combination of Youshinobu, JP 2002084724 (RELYING ON EP 1482625 A1 FOR TRANSLATION) and Mimura, JP 02099399. One of ordinary skill in the art would have been motivated to do this improve the signal strength and reduce noise.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David W. Scheuermann whose telephone number is 571-272-2035. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached at (571) 272-2044. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



dws
August 29, 2007



KARL TAMAI
PRIMARY EXAMINER